

Remarks:

Reconsideration of the application is requested.

Claims 1-5 remain in the application. Claims 1-3 and 4 are subject to examination and claim 4 has been withdrawn from examination. Claims 1 and 5 have been amended. A marked-up version of the claims is shown in the claims section of this amendment.

In item 1 on page 2 of the above-identified Office Action, claims 1-3 and 5 have been rejected as being unpatentable over Ballmann et al. (U.S. Pat. 5,887,553) (herein "Ballmann") in view of Voros, Jr. (U.S. Pat. 3,670,188) (herein "Voros") under 35 U.S.C. § 103(a).

The rejection has been noted and the claims have been amended in an effort to even more clearly define the invention of the instant application. Claim 1 has been amended to recite that the contact element of the connector is electrically contacted by an assembly contacting element, even when the connector engages a connector receptacle. The connector receptacle is not claimed as part of the actuator per se. The claim recites the contact element and the connector and their functions with respect to the assembly contacting element and the connector receptacle. Similar changes were made to claim 5. Support

for the changes is found on page 8, line 8 to page 10, line 17 of the specification of the instant application.

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful. Claim 1 calls for, *inter alia*, an electromagnetic actuator, comprising:

at least one electromagnet having a coil and a first contact surface;

an armature having a shank mechanically coupled to said resetting device, said armature being movable between said first contact surface on said electromagnet and said second contact surface; and

a connector having at least one contact element electro-conductively connected to said coil of said electromagnet, said contact element to be electrically contacted by an assembly contacting element, even upon said connector engaging a connector receptacle.

Accordingly, the present invention provides an electromagnetic actuator. The actuator contains at least one electromagnet having a coil and a first contact surface; a second contact surface; at least one resetting device; and an armature having

a shank mechanically coupled to the resetting device. The armature is movable between the first contact surface on the electromagnet and the second contact surface. A connector having at least one contact element is electro-conductively connected to the coil of the electromagnet and disposed such that, at least during assembly of the actuator onto a support, the contact element can be electrically contacted by an assembly contacting element. The connector also receives a connector receptacle.

In accordance with an added feature of the present invention, the connector has an opening formed therein, and the contact element has a region configured as a service contact that is led through the opening in the connector. The service contact, at least during the assembly of the actuator onto the support, can be electrically contacted by the assembly contacting element.

The Ballmann reference discloses an electromagnetic actuator having at least one electromagnet with a coil and a first contact surface; a second contact surface; at least one resetting device; a movable armature having a shank mechanically coupled to the resetting device and movable between the first and second contact surfaces. The reference also discloses a support for mounting the electromagnet and the armature. Ballmann does not disclose a connector having

at least one contact element electroconductively connected to the coil of the electromagnet and configured to cause the contact element to be electrically contacted by an assembly contacting element and also to be engaged with a connector receptacle.

Voros discloses a connector as shown by elements 40, 41 in Fig. 1 and described in col. 1, lines 50-60. The Examiner states that the boss 24 (see Fig. 1 and col. 2, lines 30-35) in combination with the unsecured end portion 29 of the circuit closer (see Fig. 1 and col. 2, line 40) forms a connector. Such a combination of elements is not a connector in the sense of the present invention, in which the connector is a plug-like connector that is plugged into the plug connector receptacle, as shown in Figs. 1 and 2 of the instant application.

The Examiner also states that Voros discloses a connector receptacle (27, 28, 38, 39). It is respectfully pointed out that the element 27 is integrally formed with the circuit closer (see col. 2, lines 35-40), which the Examiner states is part of the connector. The only disclosure in Voros of a connector is the protruding portion 41 of an immobile contact 33 and a closure 40 of electrically conductive material. This is a male connector plug which presumably can be plugged into a female connector plug (not disclosed). However, there is no

disclosure of a contact element that is electrically contactable by an assembly contacting element as recited in the claims of the instant application.

Thus, it is submitted that even a combination of Voros with Ballmann would not result in the claimed invention.

Clearly, the references do not show "a connector having at least one contact element electro-conductively connected to said coil of said electromagnet, said contact element to be electrically contacted by an assembly contacting element, even upon said connector engaging a connector receptacle", as recited in claim 1 of the instant application. Claim 5 contains similar limitations.

The Examiner has stated that Ballmann is deficient in several respects in that it does not disclose, inter alia, a connector receptacle and a connector with at least one contact element having the function as recited in the claims. The Examiner proposes to make up for the deficiencies of Ballmann by modifying Ballmann with the disclosure of Voros. However, as discussed above, Voros does not disclose or suggest the claimed features. Moreover, it is submitted that one skilled in the art would not necessarily combine the references simply "for the purpose of facilitating the ease of replacement of the contact points", as stated by the Examiner. The Examiner

has not shown any motivation, teaching or need in Ballman to warrant or justify modifying it with Voros. It is not realistic to expect that one skilled in the art would look to the 1972 disclosure of Voros to modify the 1999 disclosure of Ballmann. It is submitted that such a combination is based on a hindsight reconstruction of the prior art in view of applicants' claimed invention.

A critical step in analyzing the patentability of claims pursuant to 35 U.S.C. § 103 is casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field. See In re Dembiczak, 175 F.3d 994, 999, 50 USPQ2d 1614,1617 (Fed. Cir. 1999). Close adherence to this methodology is especially important in cases where the very ease with which the invention can be understood may prompt one "to fall victim to the insidious effect of a hindsight syndrome wherein that which only the invention taught is used against its teacher." Id. (quoting W.L. Gore & Assocs., Inc. v. Garlock, Inc., 721 F.2d 1540, 1553, 220 USPQ 303, 313 (Fed. Cir. 1983)).

Most if not all inventions arise from a combination of old elements. See In re Rouffet, 149 F.3d 1350, 1357, 47 USPQ2d 1453,1457 (Fed. Cir. 1998). Thus, every element of a claimed invention may often be found in the prior art. See id.

However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. See id. Rather, to establish obviousness based on a combination of the elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the appellant. See In re Dance, 160 F.3d 1339, 1343, 48 USPQ2d 1633, 1637 (Fed. Cir. 1998); In re Gordon, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984).

The motivation, suggestion or teaching may come explicitly from statements in the prior art, the knowledge of one of ordinary skill in the art, or, in some cases the nature of the problem to be solved. See Dembiczak, 175 F.3d at 999, 50 USPQ2d at 1617. In addition, the teaching, motivation or suggestion may be implicit from the prior art as a whole, rather than expressly stated in the references. See WMS Gaming, Inc. v. International Game Tech., 184 F.3d 1339, 1355, 51 USPQ2d 1385, 1397 (Fed. Cir. 1999). The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art. See In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981) (and cases cited therein). Whether the Examiner relies on an express or an implicit

showing, the Examiner must provide particular findings related thereto. See Dembiczak, 175 F.3d at 999, 50 USPQ2d at 1617. Broad conclusory statements standing alone are not "evidence." Id. When an Examiner relies on general knowledge to negate patentability, that knowledge must be articulated and placed on the record. See In re Lee, 277 F-3d 1338, 1342-45, 61 USPQ2d 1430, 1433-35 (Fed. Cir. 2002).

Upon evaluation of the Examiner's comments, it is respectfully believed that the evidence adduced by the Examiner is insufficient to establish a prima facie case of obviousness with respect to the claims. Moreover, the combination of references, even if appropriate, does not result in the claimed invention. Accordingly, the Examiner is requested to withdraw the rejection.

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claims 1 and 5. Claims 1 and 5 are, therefore, believed to be patentable over the art. The dependent claims are believed to be patentable as well because they all are ultimately dependent on claim 1.

In view of the foregoing, reconsideration and allowance of claims 1-5 are solicited.



In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate receiving a telephone call so that, if possible, patentable language can be worked out. In the alternative, the entry of the amendment is requested, as it is believed to place the application in better condition for appeal, without requiring extension of the field of search.

If an extension of time for this paper is required, petition for extension is herewith made.

Please charge any fees that might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner and Greenberg, P.A., No. 12-1099.

Respectfully submitted,

  
For Applicants

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